Figure 1. Limits of Photographic Diagnosis



X-Ray, CT, PET

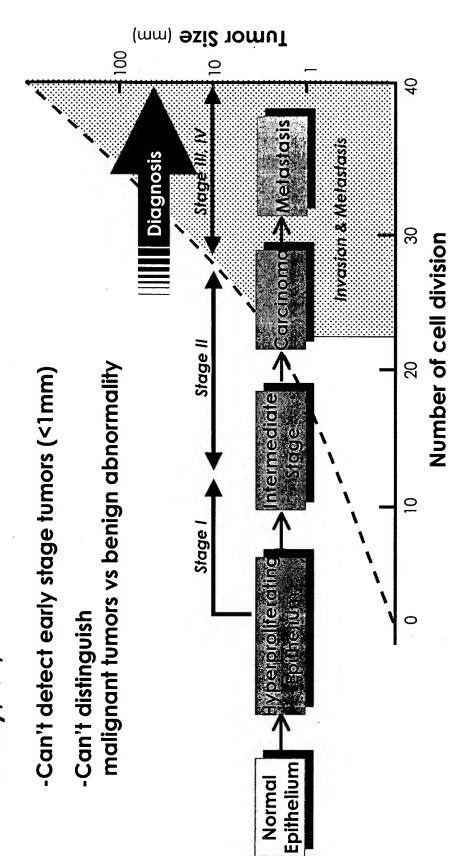


Figure 2. Cytology vs biomarker Test





Sputum Cytology

Microscopic examination

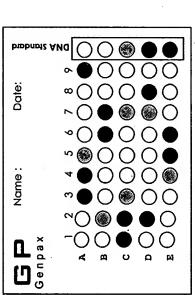
- -Subjective
- -Low through-put
- -Simple morphology

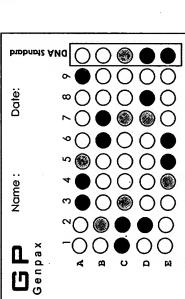




Sputum Sample

Lung Cancer





biomarker Test Sputum

Molecular genetic profile

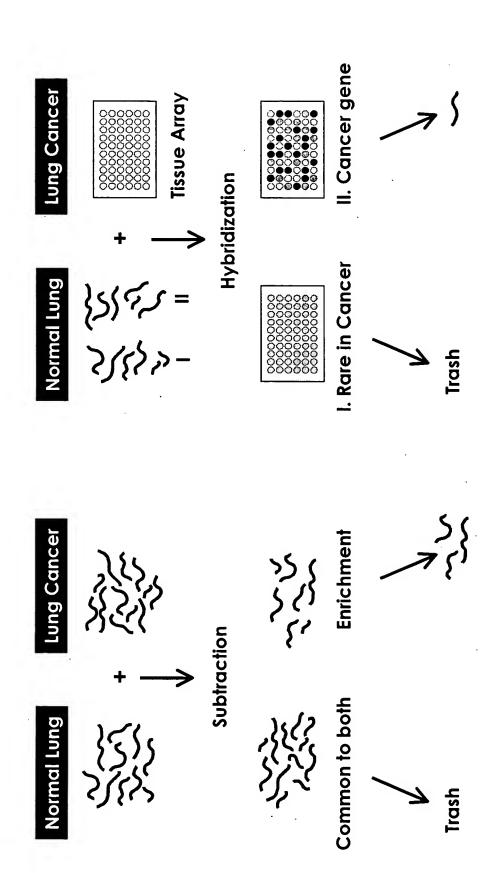
- -Objective
- -High through-put
- -Genetic information

Figure 3. Strategic Comparison



A. Conventional Screen

en B. Novel In Situ Screen







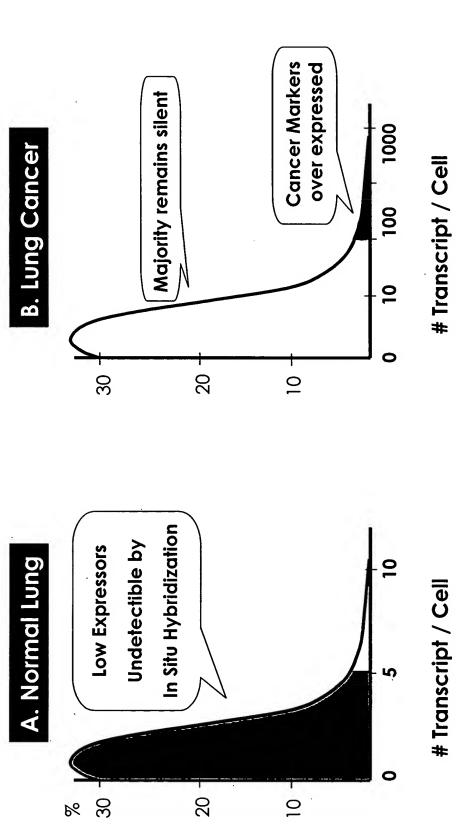


Figure 5. Experimental Flow Chart



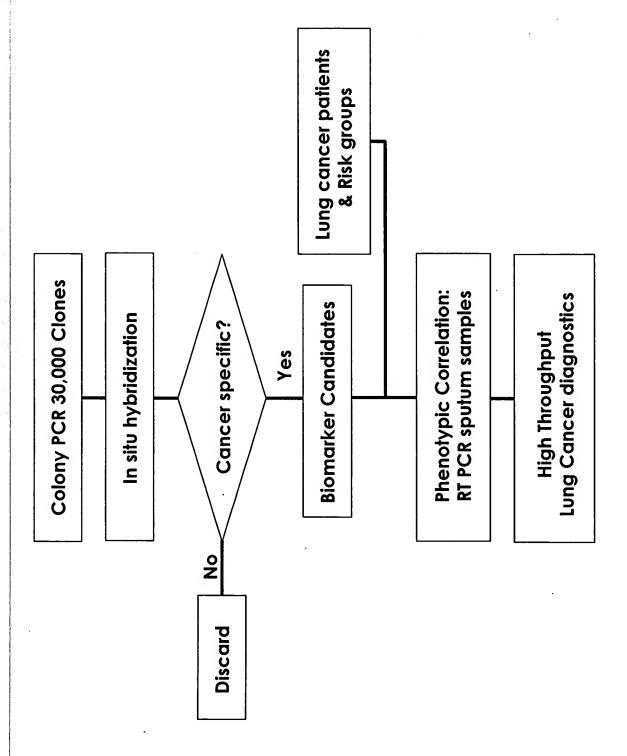


Figure 6. New Lung Cancer Markers



	Identify		Expression	
No.	(chromosomal location)	Low	medium	high
J	MACF1 mRNA	55	0	5
2	No Homology (17)	145	27	ω
ო	No Homology (16)	121	47	12
4	EIF4A1 mRNA (17)	121	47	12
5	No Homology	57	96	. 27
9	No Homology(15)	42	15	2
7	No Homology (6)	59	104	17

Figure 7. Expression patterns (4)



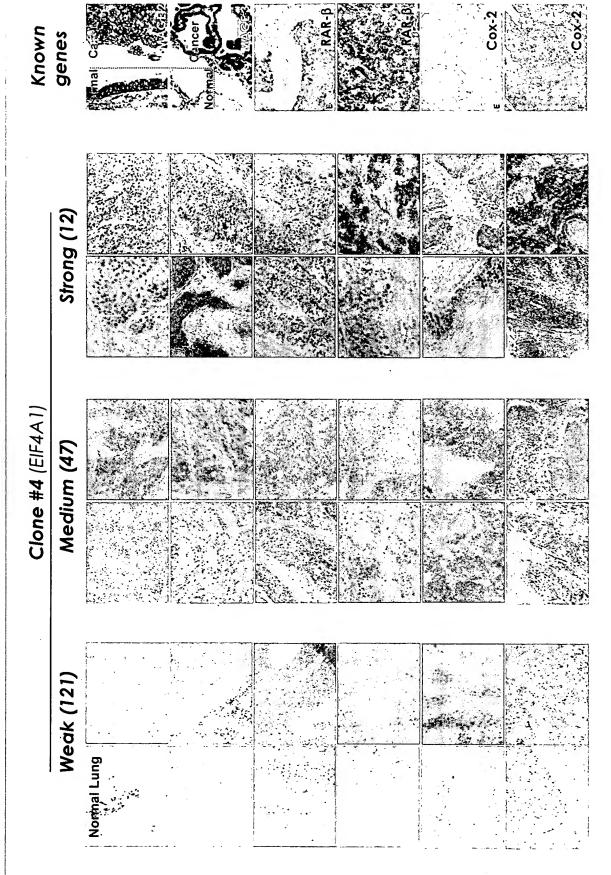


Figure 8. Aım of Molecular Diagnostics



Algorithm to connect genotypes to phenotypes

